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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,262	02/27/2004	Kunihiko Miyazaki	64235-016	1288
20277 7590 09/18/2008 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096				
EXAMINER WYSZYNSKI, AUBREY H				
ART UNIT		PAPER NUMBER		
2134				
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09/18/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/787,262

**Applicant(s)**

MIYAZAKI ET AL.

**Examiner**

AUBREY H. WYSZYNSKI

**Art Unit**

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-30 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) 22-30 is/are allowed.  
6) ☒ Claim(s) 16-21 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SI/08)  
Paper No(s)/Mail Date 6/30/08  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. The response of 6/30/08 was received and considered.
2. Claims 1-15 are canceled.
3. Claims 16-30 are newly added.

***Information Disclosure Statement***

4. The IDS submitted 6/30/08 was received and is being considered by the examiner.

***Response to Arguments***

5. Applicant's arguments regarding claims 16-21 have been fully considered but they are not persuasive.
6. Regarding claims 16-21, applicant argues Steinfeld and Brown lack or do not expressly disclose "further affixing another signature by using a private key which is different from the private key used when the electronic signature is affixed to the disclosure statement." The examiner respectfully disagrees. Brown discloses affixing multiple signatures using different private keys (col. 5, line 13-col. 6, line 42). Please see the rejection below for further clarification.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 22-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 22-27 are directed towards an electronic document redacting system executing a first program and a second program

which are not tangibly embodied on a computer readable medium. Therefore, claims 22-27 could be broadly interpreted as being implemented entirely in software. Hence, claims 22-27 are directed towards non-statutory subject matter.

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
11. Claim 16 recites the limitation "the bound data" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.
12. Claim 16 recites the limitation "the private key" in line 11. There is insufficient antecedent basis for this limitation in the claim.
13. Claim 16 recites "further affixing another signature" in line 10 and should be changed to "further affixing another electronic signature".
14. Claim 16 recites "when the electronic signature is affixed to the disclosure document" is unclear and should be changed to "when the electronic signature is affixed to the disclosure *object* document."
15. The applicant's cooperation is requested in correcting similar occurrences in the remainder of the claims.

***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ron Steinfeld, Laurence Bull and Yuliang Zheng, "Content Extraction Signatures" (hereinafter Steinfeld) and further in view of Brown et al., US 6,671,805.

Regarding claim 16, Steinfeld discloses an electronic document disclosure method comprising the steps of: dividing an electronic document into a plurality of constituent elements; creating data in which hash values respectively calculated on the plurality of constituent elements by means of a cryptographic hash function are bound to the respective plurality of constituent elements; creating a disclosure object document by affixing an electronic signature to the bound data (page 287, 2.1 describes Content Extraction Signature (CES), dividing a document into portions or sub messages and runs an extract algorithm to produce an extracted signature, also page 286 describes signing portions of a document, Steinfeld further discloses hash values on page 294, first ¶¶ and pages 295-296, A Variant: Scheme HashTree; Extraction consists of appending to the signature the hash values associated with intermediate tree nodes which are required in order to compute the root has value from the commitments of the extracted submessages in the subdocument);

creating a disclosure document in which information not to be disclosed is omitted from the disclosure object document (fig. 1, subdocument A and subdocument B and page 287, 2.1). Steinfeld lacks or does not expressly disclose wherein further affixing another signature generated by using a private key which is different from the private key used when the electronic signature is affixed to the disclosure document.

However, Brown discloses further affixing another signature generated by using a private key which is different from the private key used when the electronic signature is affixed to the disclosure document (col. 5, line 13-col. 6, line 42).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Steinfeld with the method of Brown in order to affix another electronic signature which is different from the previous electronic signature in order to correspond to different signing roles and apply unique private keys, as taught by Brown (col. 5, line 13-col. 6, line 42).

Regarding claim 17, Steinfeld discloses an electronic document method comprising the steps of: dividing an electronic document into a plurality of constituent elements; generating and binding random-numbers to the respective constituent elements; creating data in which hash values respectively calculated on the plurality of random-numbered constituent elements by means of a cryptographic hash function are bound to the respective plurality of random-numbered constituent elements; creating a disclosure object document by affixing an electronic signature to the bound

data (page 296, first ¶), the randomness values for the extracted submessage are also appended);

creating a disclosure document in which information not to be disclosed is omitted from the disclosure object document.

Steinfeld lacks or does not expressly disclose wherein further affixing another signature generated by using a private key which is different from the private key used when the electronic signature is affixed to the disclosure document.

However, Brown discloses further affixing another signature generated by using a private key which is different from the private key used when the electronic signature is affixed to the disclosure document (col. 5, line 13-col. 6, line 42).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Steinfeld with the method of Brown in order to affix another electronic signature which is different from the previous electronic signature in order to correspond to different signing roles and apply unique private keys, as taught by Brown (col. 5, line 13-col. 6, line 42).

Regarding claims 18 and 20, Steinfeld discloses an electronic document disclosure system comprising: an original document creator unit which divides an electronic document into a plurality of constituent elements, creates data by combining each of the plurality of constituent elements and each of hash values respectively calculated on the each of the plurality of constituent elements by means of a cryptographic hash function, creates a disclosure object document in which an electronic signature of an original

document creator is affixed to the combined data, and stores the resultant electronic document into a document management unit (page 288, fig. 1, university A creates original document and page 287, second ¶, The university uses the Sign algorithm of a CES scheme to sign the original document, divided into portions (submessages) and produce a content extraction signature, given to student B along with the full document); a disclosure document creator unit which takes out the disclosure object document from the document management unit, at the time of acceptance of an information disclosure request, omits information not to be disclosed from the disclosure object document, creates another signature generated by a private key which is different from the private key used for affixing an electronic signature of the original document creator, and sends the disclosure document to a recipient unit; and the recipient unit which verifies a signature of the original document creator at the time of acceptance of the disclosure document which is made published (fig. 1, Student B and Prospective Employers C and D; and page 287, second ¶, The student then extracts a *subdocument A'* of the original document consisting of a selected subset of the document submessages (e.g. not including *m1*, the DOB of B, but including all other submessages) He then runs an Extract algorithm of the CES scheme to produce an *extracted signature* by the university A for the extracted subdocument A'. Student B then forwards the subdocument A' and the extracted signature for A'. The employer uses the Verify algorithm of the CES to verify the extracted signature on A').



Steinfeld lacks or does not expressly disclose wherein further affixing another signature generated by using a private key which is different from the private key used when the electronic signature is affixed to the disclosure document.

However, Brown discloses further affixing another signature generated by using a private key which is different from the private key used when the electronic signature is affixed to the disclosure document (col. 5, line 13-col. 6, line 42).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Steinfeld with the method of Brown in order to affix another electronic signature which is different from the previous electronic signature in order to correspond to different signing roles and apply unique private keys, as taught by Brown (col. 5, line 13-col. 6, line 42).

Regarding claims 19 and 21, Brown further discloses the electronic document disclosure system according to claim 18, wherein the recipient unit further verifies the signature of the another signature at the time of acceptance of the disclosure document which is made published (col. 22, line 9 -col. 23, line 45).

***Allowable Subject Matter***

18. Claims 22-30 are allowed. However, claims 22-27 must be corrected to overcome the rejections under 35 U.S.C. §101 as set forth above.

19. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).
20. The following is a statement of reasons for the indication of allowable subject matter: The applicant's arguments regarding independent claim 22 are persuasive.

### ***Conclusion***

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AUBREY H. WYSZYNSKI whose telephone number is

(571)272-8155. The examiner can normally be reached on Monday - Thursday, and alternate Friday's.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571)272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aubrey H Wyszynski/  
Examiner, Art Unit 2134

/Kambiz Zand/  
Supervisory Patent Examiner, Art Unit 2134